

PHENIX WEEKLY PLANNING

TECHNICAL
SUPPORT
NO--



6/30/2011
Don Lynch

Run 11 Ends.

PHENIX shutdown major projects ESRC safety reviews (June 27, 3:00 PM)

Prepare work permits and procedures for shutdown

Schedule MuTr lifting fixture re-certification test

Complete mechanical, electrical and gas system support for Run 11

Begin shutdown 2011

Purge flammable gas

Open Wall

PC1 repair attempt

MuTr Station 2/3 North re-cap clamp tests

Future upgrades support

Next Week

TECHNICAL SUPPORT NO. 1

Riggers to remove shield wall

Holiday July 4th -5th

Most taking vacation for the rest of the week

Week of July 11-15

MuTr Vacuum lifting test re-certification

Remove MuID collars

Prep EC for move to AH, Move EC to AH

BBC south maintenance

Begin disassembling VTX

RPC1, VTX, FVTX and MuTr work prep

Planning For the 2011 Shutdown

TECHNICAL SUPPORT ZONE

- | | |
|--|----------------|
| • Run 11 Ends | Done |
| • Shutdown Standard Tasks | 6/28-7/21/2010 |
| • Open wall, disassemble wall, Remove MuID Collars, | |
| • Move EC to AH, etc. | |
| • PC1 repairs - Anders O. | 6/29-7/10/2010 |
| • IR Crane repairs and upgrade | 7/21-7/28 |
| • Disassemble VTX services | 7/11-7/22 |
| • Remove VTX and transport to Chemistry Lab | 7/25/2011 |
| • BBC North & South maintenance | 7/22-7/29/2011 |
| • MuTr North Station 1 work | |
| • Install access (Sta. 1 work platforms & CM west side hanging platform) | 7/25-7/29/2011 |
| • Remove 1 section of bridge (1 week) (CAD Techs) | 8/1-8/5/2011 |
| • Disconnect Cables, hoses etc, ID/label all (1 week) | 8/8-8/12/2011 |
| • Remove FEE plates and chambers (1 week) | 8/15-8/19/2011 |
| • Station 2 Maintenance/upgrade through access opened by station 1 removal (3 weeks concurrent with next task) | 8/22/-9/9/2011 |
| • Clean/install new parts and upgrades (MuTr (3 weeks, concurrent At RPC Factory) | 8/22/-9/9/2011 |
| • Re-install chambers and FEE plates (1 week) | 9/12-9/16/2011 |
| • Re-cable, re-hose and test (3 weeks) | 9/19-10/7/2011 |

Planning For the 2011 Shutdown (cont'd)

TECHNICAL SUPPORT ZONE

- MuTr North& South Station 2 & 3 Re-cap clamps (No internal work platforms to upper octants) (Need CAD Techs to remove MMS east vertical lampshade) 7/25-10/31/2011
- VTX maintenance/upgrade and integration of FVTX onto VTX support structure
 - Build 2 FVTX racks 7/1-9/15/2011
 - Disassemble VTX 7/11-7/25/2011
 - repair/upgrade/test/reassemble/resurvey VTX 7/25-9/30/2011
 - Assemble FVTX, presurvey Present-10/3/2011
 - Integrate FVTX into VTX, final internal survey 10/3-10/14/2011
 - Install VTX/FTX, Re-connect VTX services, Install FVTX services, survey and QA tests 10/17-10/28/2011
 - VTX/FVTX Commissioning 10/31-11/30/2001
- RPC1 upgrades 7/25-10/28/2011
 - Pre-survey RPC1's at factory (2 weeks, 1 each for n & s) 7/25-8/12/2011
 - Build 1 new rack, upgrade existing RPC1 prototype rack 7/25-8/12/2011
 - Install north RPC1 (including north rack) (3 weeks) 8/15-9/2/2011
- RPC3 HV Distribution modifications, gas distribution modifications, PS calibration 9/6-10/7
- Move Station 1 work platforms to south station 1 10/10-10/14/2011
 - Install south RPC1 (including south rack) (3 weeks) 10/17-11/4/2011
- Upgrade AH crane 8/15-9/15/2011
- DC/PC1 East troubleshooting (DC moved forward on rail for access) 10/15-11/15/2011
- Install VTX&FVTX (including installation of 2 racks on bridge) (2 weeks) 9/26-11/7/2011
- Undefined detector subsystem maintenance and repairs 7/25-11/7/2011
- Prep for EC roll in, reinstall MMS lampshade 11/3-11/7/2011
- Roll in EC 11/10/2011
- Prep IR for run 11/10-11/17/2010
- VTX, FVTX and RPC1 Services and commissioning (including 4 new racks) 9/16-11/30/201
- Pink/Blue/White sheets 11/17-11/30/2011
- Run 12 cooldown 12/1/2011

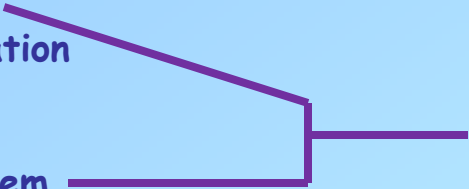
6/23/2011

Electronics Group 2011 Shutdown Tasks

TECHNICAL SUPPORT 2011

- CMT4 and CMT5 FVTX rack design and assembly for installation on the bridge. *Design in progress.*
- FVTX Bias cable assemblies.
 48 eight pair #22AWG. 1680 ft total.
 384 RG-174 cables terminated with CPC and MMCX R/A conns. 1500 ft total.
 All parts are on order. Drawing finished and out for bid. .
- Purchase and install FVTX LV cables.
 Wedges: 96 eight pair #22AWG terminated in DF11 conns. 3400 ft total.
 ROCs: 24 twelve pair #16AWG terminated in TYCO 2-106527-4 conns. 900ft total.
 Cable is on order.
- All FVTX fiberoptics specify, purchase and install.
 MTP trunk order entered. Slow Controls fiber and patch bay order entered .
- FVTX LV output mapper boards. *Eric Mannel is designing and we will assemble.*
- PbSc terminator board production. *Part kit has been picked up. Terminators expected by 6/22.*
 MuTr capacitors are here
- West carriage ADAM system performance upgrade.
 Purchased a couple of Ethernet ADAMs for testing. Need to purchase a MODBUS server.
- Complete the GL1 6X1 Multiplexer assemblies and test. *Layout stage begun .*
- LeCroy HV control retrofit testing. *Waiting for documentation from Debrecen Institute.*
- Design/Install FVTX Interlock system.
 Paul with some input from me and John. Also we may try to repair the bad TC connections.

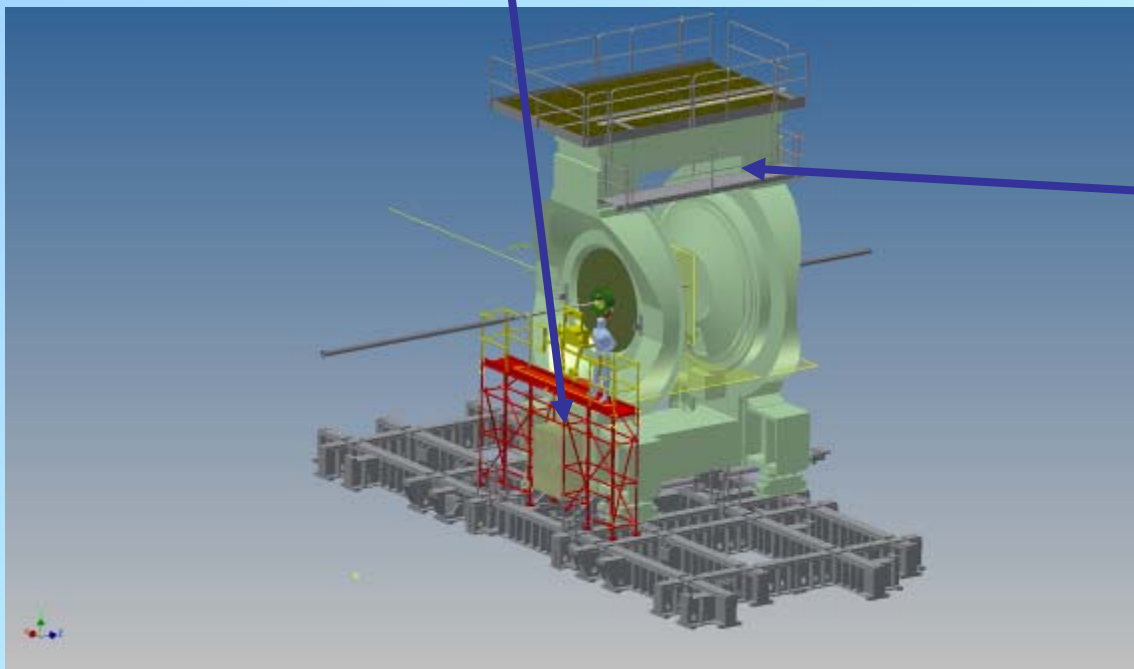
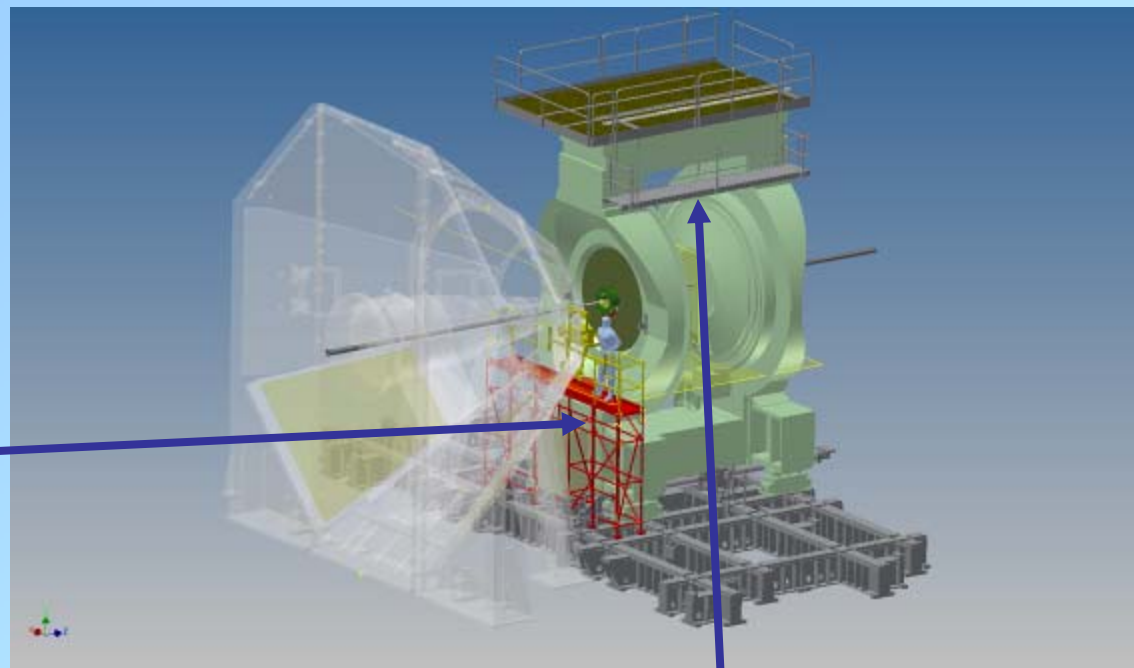
Procedures for Shutdown 2011

- Existing PHENIX General Purpose Recurring Task procedures
 - VTX Removal
 - FVTX/VTX installation
 - VTX Survey
 - FVTX Survey
 - FVTX Cooling System
 - RPC1 Installation/QA testing/Survey
 - MuTr Maintenance & Upgrade (stations 1 2 & 3)
 - MuTrigger Maintenance and Upgrade
- 
- Procedures will be part of 1 WP for VTX and FVTX

Work Permits for Shutdown 2011

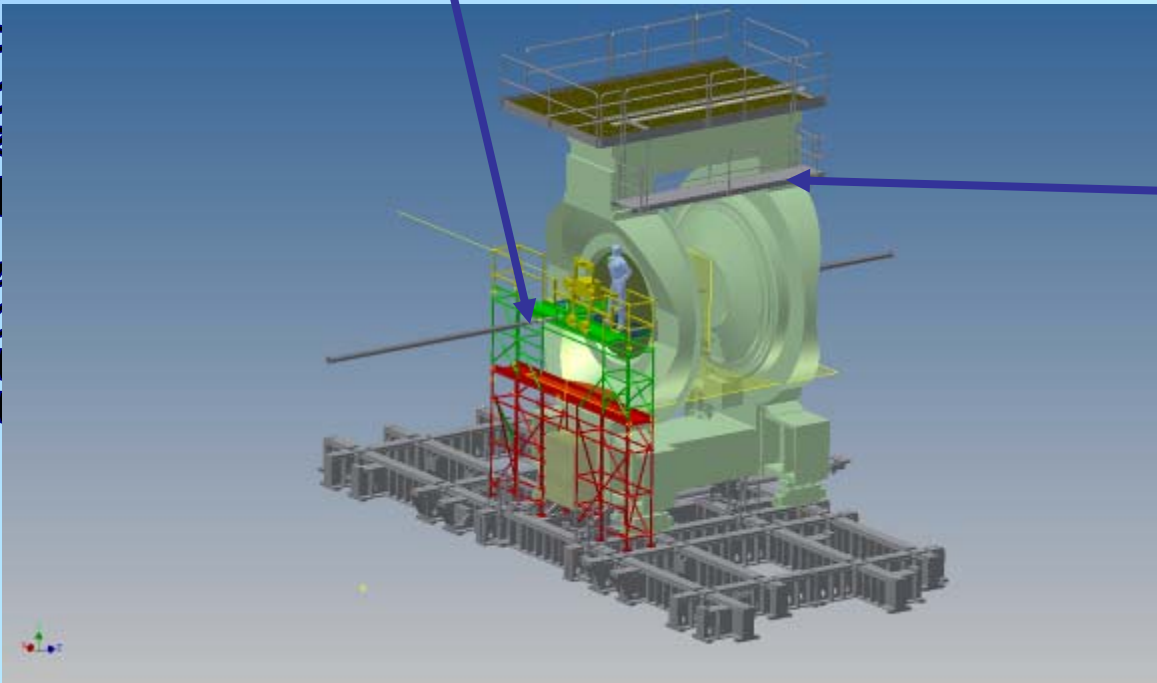
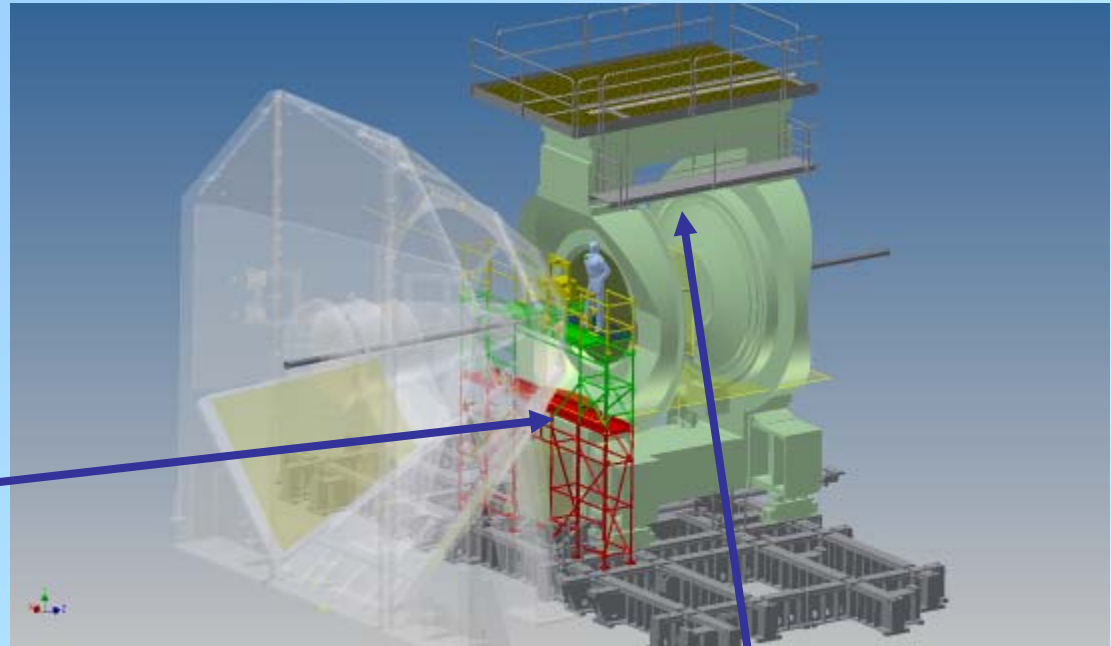
- **Start of Shutdown - Done**
- VTX Removal/FVTX/VTX Installation
- MuTr Maintenance and Upgrade (Separate WP's for MMN and MMS access)
- RPC1 Installation
- **PC1 - Done**
- End of Shutdown

Station 1 platform configured for lower level access shown with North Muon Magnet in phantom for reference and invisible for clarity.



Central Magnet suspended work platform also shown in both models.

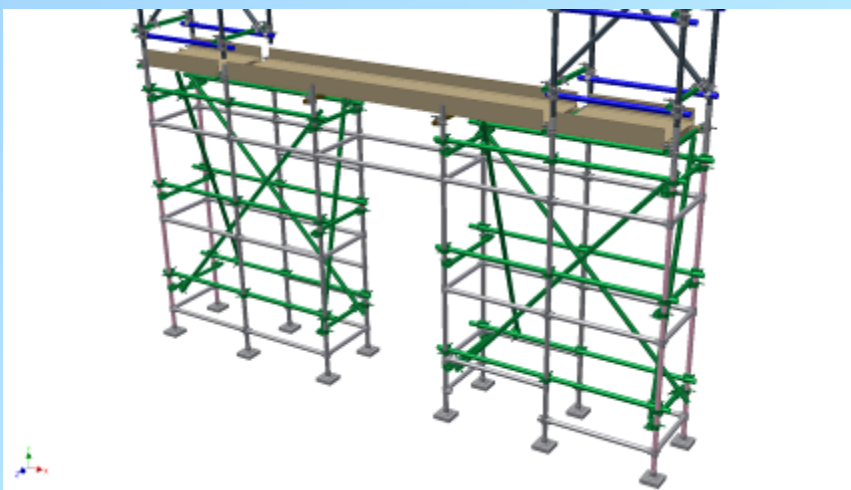
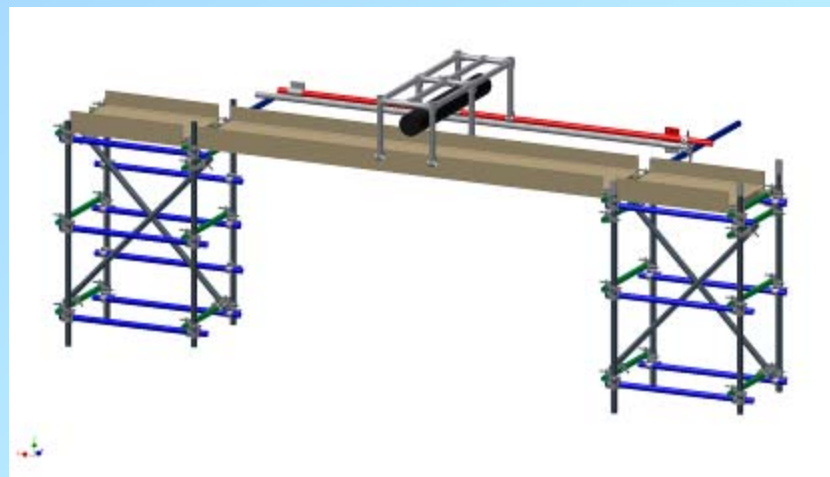
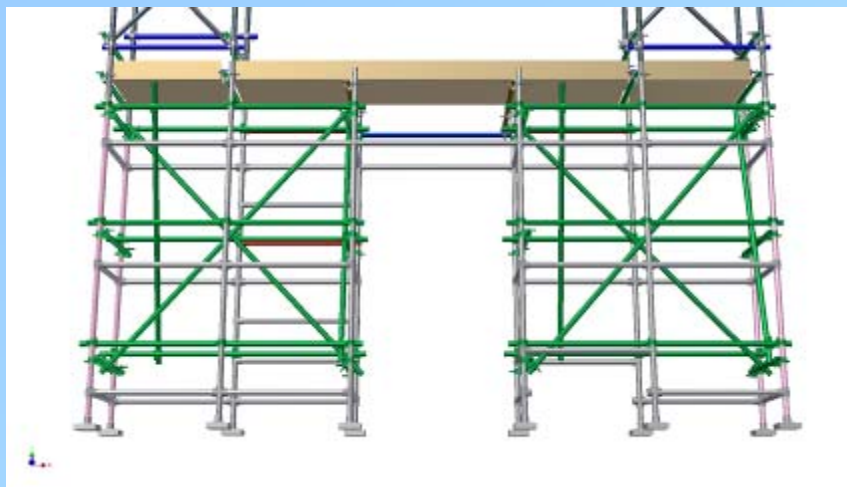
Station 1 platform configured for upper level access shown with North Muon Magnet in phantom for reference and invisible for clarity.



Central Magnet suspended work platform also shown in both models.

"Improvements"

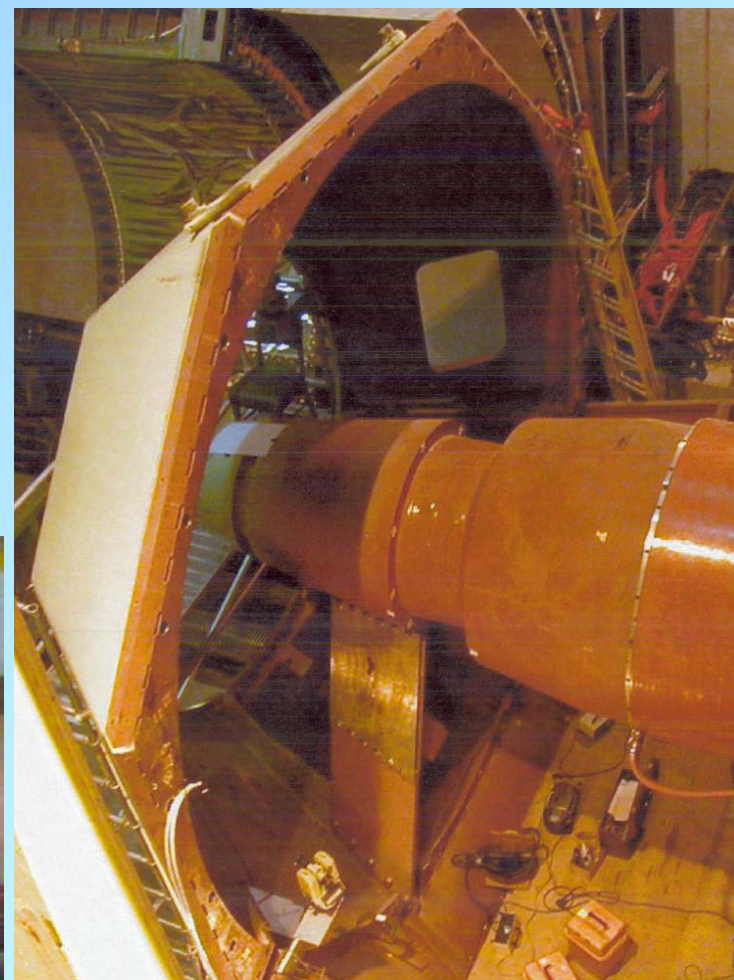
TECHNICAL SUPPORT



Final Design

TECHNICAL SUPPORT



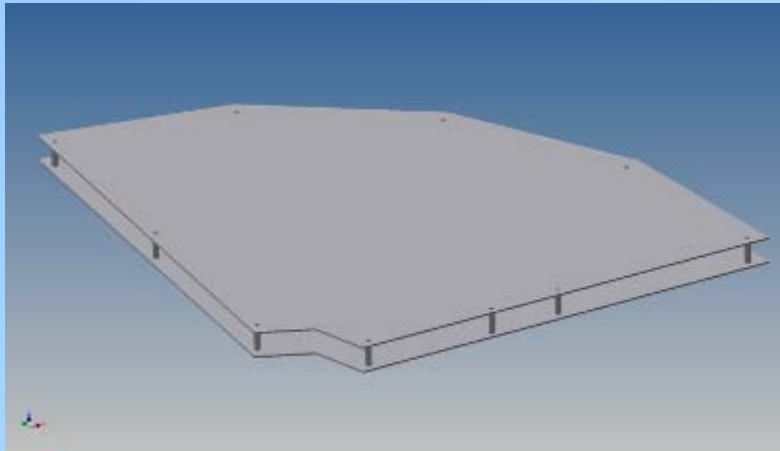


Station 2 access (MMS shown
MMN is similar)



MuTr station 1 lifting fixture
Re-certification analyses
submitted to CAD





Dummy MuTr Station 1 Octant. Will be used to re-qualify vacuum lifting fixture and to practice using vacuum lifting fixture prior to removing station 1 north octants.

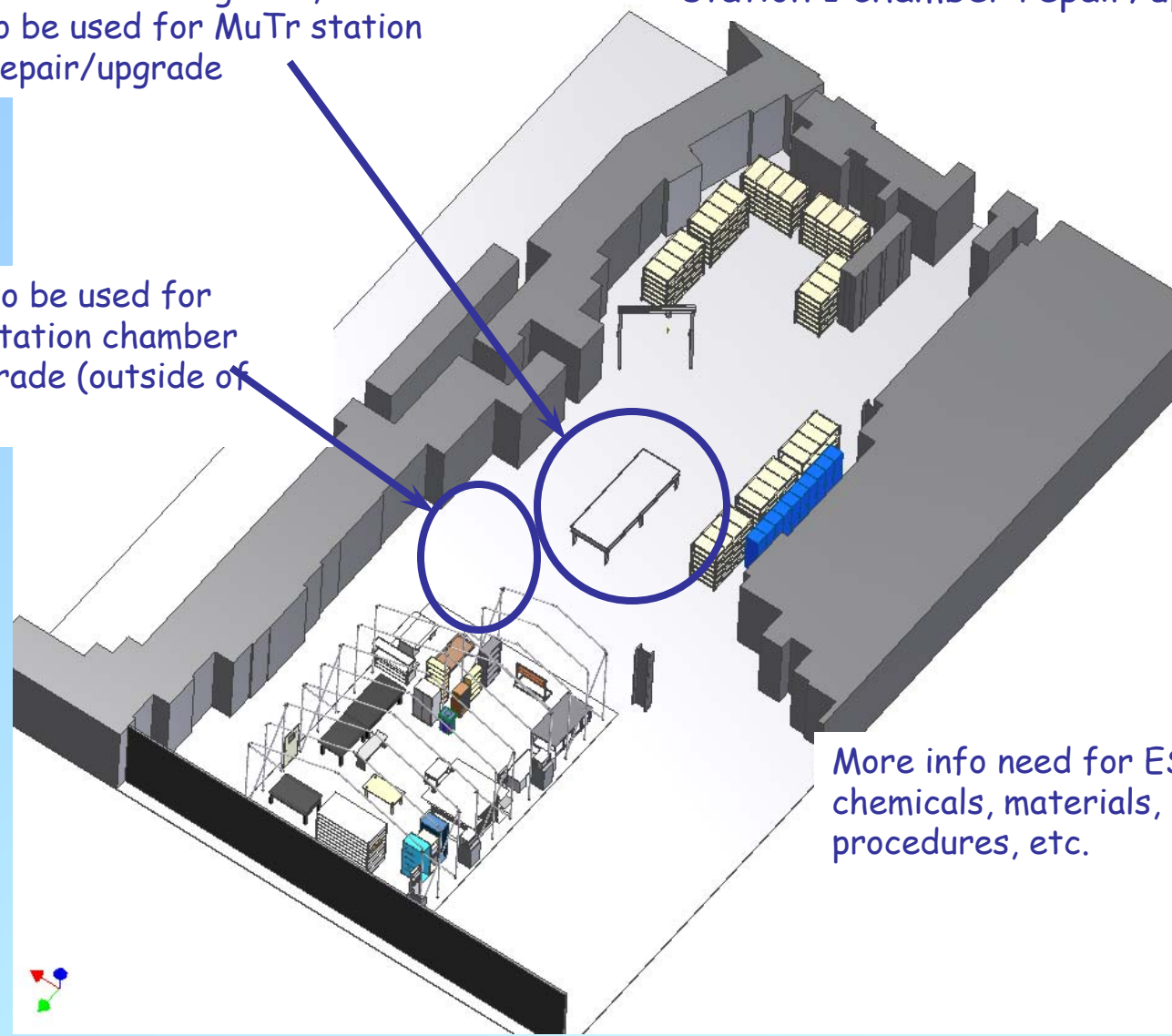


6/23/2011

This area (previously occupied by burn-in test stand and enclosing tent, now just tent) to be used for MuTr station 1 chamber repair/upgrade

This area to be used for soldering station chamber repair/upgrade (outside of tents)

RPC Factory site to be utilized by both RPC1 fabrication/testing and MuTr station 1 chamber repair/upgrade



More info need for ESRC: chemicals, materials, methods and procedures, etc.

AH and IR Crane Corrective Actions



IR Crane 1 ton replacement parts received. Paul and Mike R. planning for upgrade work, test complete



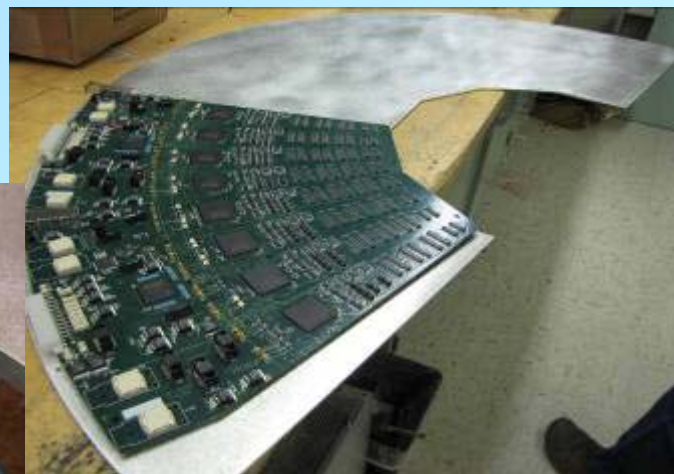
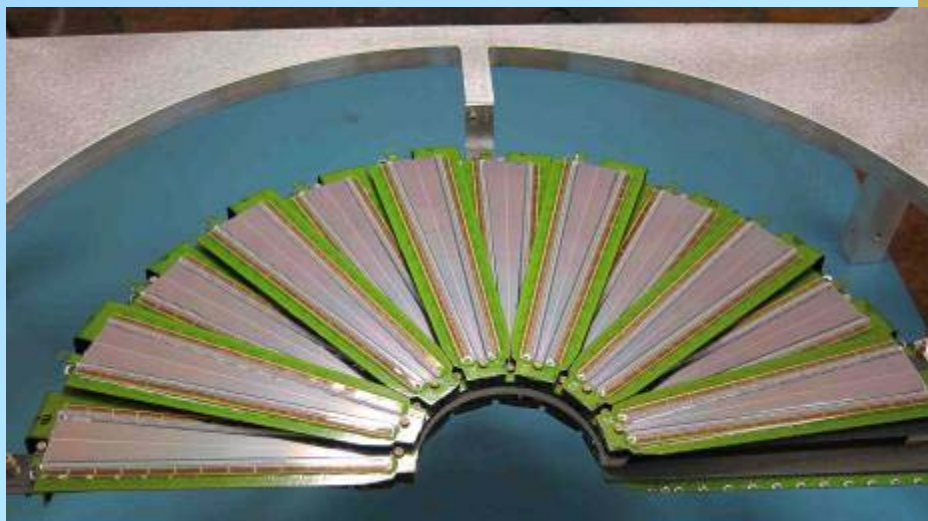
AH Crane:

Expect 10 ton crane to be back in service ASAP, ??

6/23/2011

FVTX /VTX Assembly & Integration

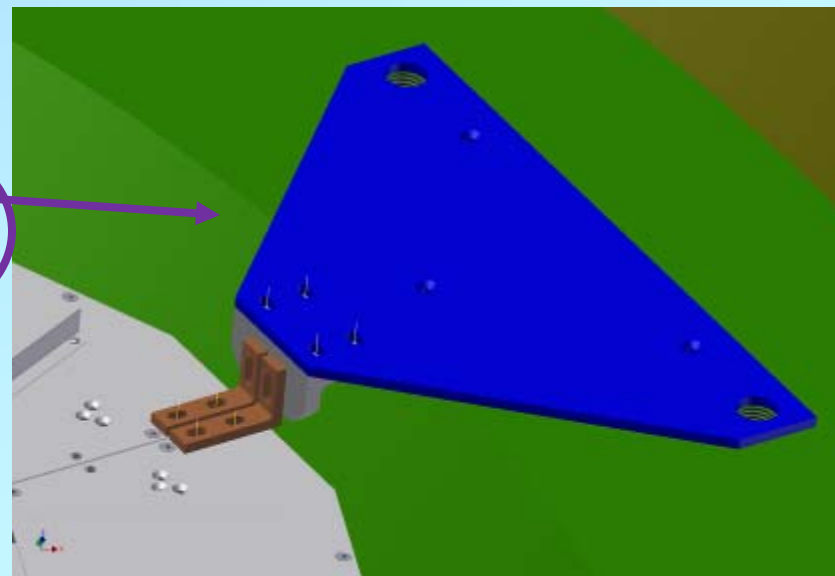
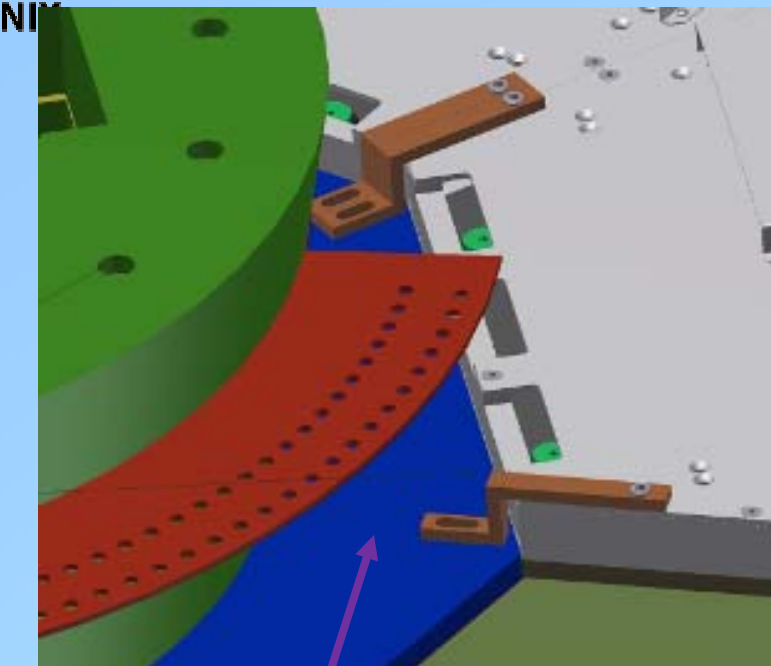
TECHNICAL SUPPORT

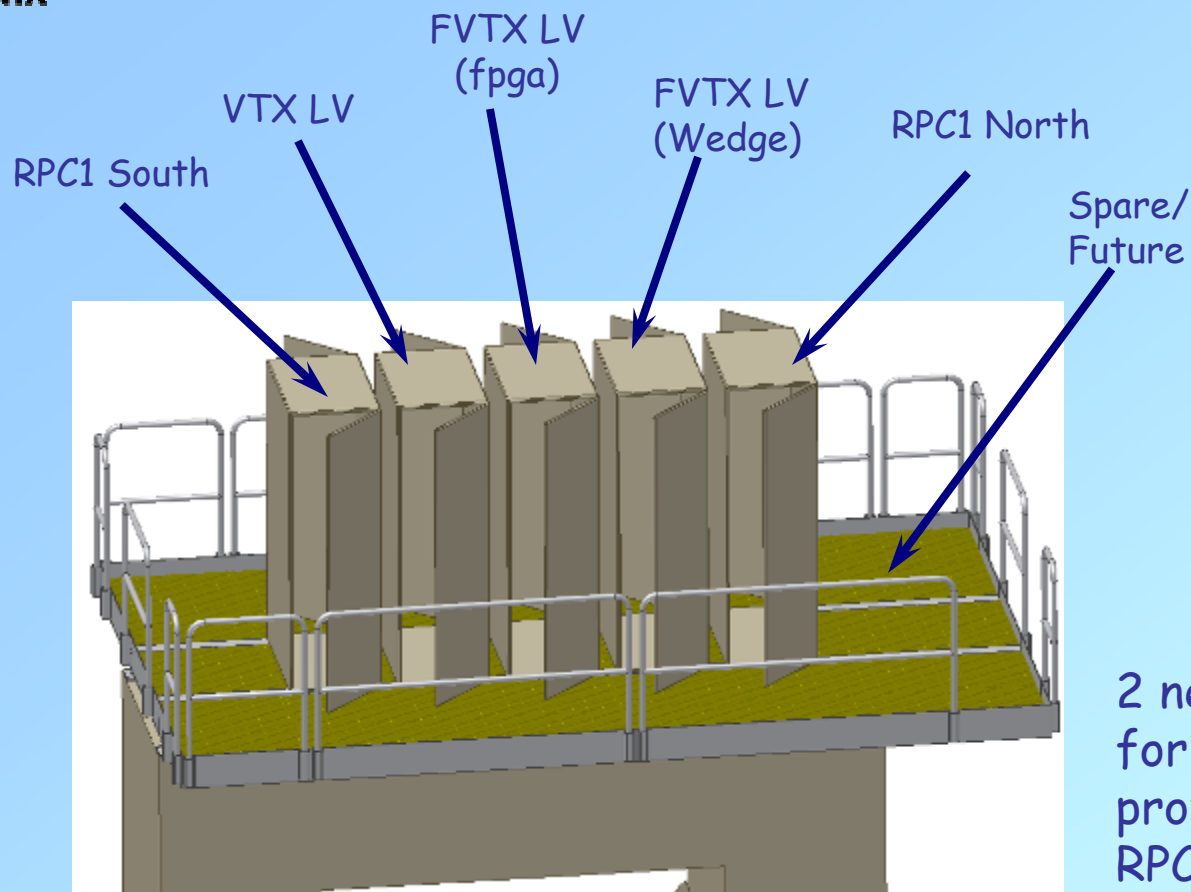


6/23/2011

RPC1 Mounting Concept

Octants are individually mounted then tied together and supported at the outer octant boundaries by brackets mounted on existing tapped holes, and on inner edges by rings which wedge against the flower pot lead liner. Tapped holes in 8 places on each octant are used both to mount the absorber section and to attach the mounting brackets.

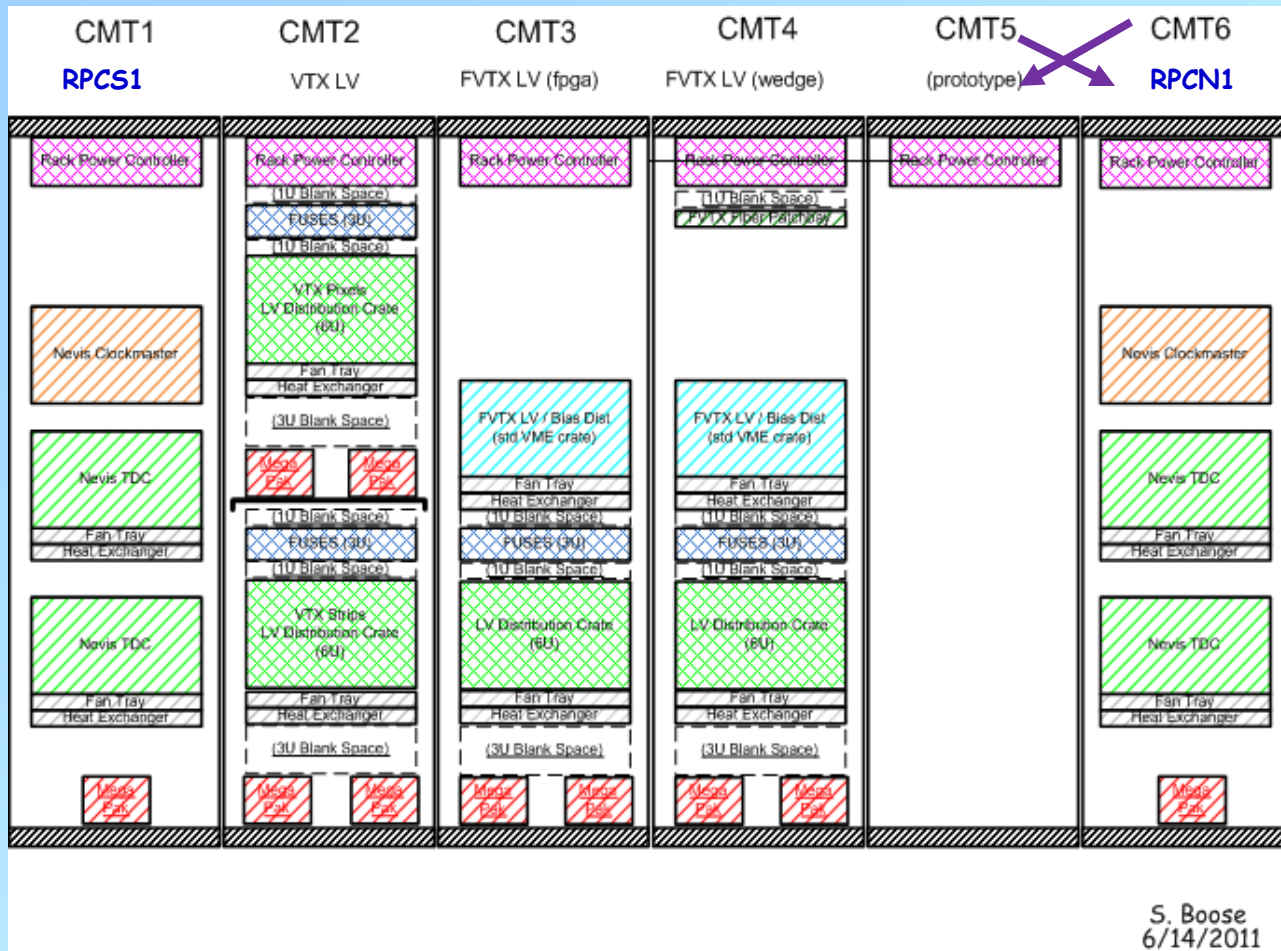




2 new racks to be added for FVTX, 1 new and prototype upgraded for RPC1. All racks will be equipped with standard PHENIX heat, smoke and water leak detection.

PHENIX Electronics 2011 Shutdown Installation

TECHNICAL SUPPORT



S. Boose
6/14/2011

2010 Building Maintenance Issues

- Roof leaks in utility bathroom at northwest corner behind tech offices, over door between rack room and assembly hall, over door between control room and elect. ass'y room, southeast corner of IR and laser room.



- Flooding in AH/ Driveway heaving



- Electronics test/assembly room-to-parking lot door
(does not open/close/lock properly - needs to be replaced)

PHENIX Procedure Review Current Status:

147 Procedures Identified

- 87 Made Inactive (not currently in use, will require revision to re- activate if and when necessary, available for reference purposes)
- 9 CAD procedures relevant to PHENIX, all are up to date and available on the CAD web site
- 43 PHENIX approved procedures.
all are current and up-to-date
- 9 Proposed/Draft Procedures (never previously formalized) (3 are ready for review) These will be addressed during next few months.

Web retrieval of latest procedures now available from PHENIX Internal:

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_procedures.htm

All active Procedures are up to date through the end of 2011.

1. CAD ESRC reviews for PHENIX Shutdown (June 27)

- waiting for minutes and action items
- Sent updated MuTr lifting fixture info to Gaffney & Hynan
- Requested info for MuTr work from M. Leitch
- Working on work platform analyses expect to review with CAD engineering week of July 11-15
- No other major issues

2. 4th of July holidays coming: Be safe, Be Careful and Enjoy



Where To Find PHENIX Engineering Info



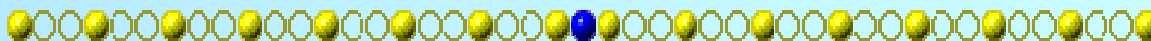
4th of July Holiday week: All
engineers and techs on vacation

Enjoy No planning meeting next
week. See you July 11th!



Links for the weekly planning meeting slides, archives of past meeting slides, long term planning, pictures, videos and other technical info can be found on the PHENIX Engineering web site:

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm



6/23/2011